Overview
CALFED Accomplishments and Program Performance

This document provides information on accomplishments and program performance for CALFED program elements.

This information is intended to provide a representative example of the progress that is being made on each program element. This information also shows that work on developing performance measures is progressing, and that much work is still needed in this area.

The following document is organized by program element. ***It is important to note that the information presented is representative of the overall universe of information being collected on Program activities.*** Performance measures are intended to show examples of the ways to gauge progress towards our goals. With guidance from the CALFED Science Program, the program elements are expect to make progress in establishing which of these sample indicators and other metrics will serve best as our preferred measure of performance.

Background

Resource managers have recognized for decades that performance measures can tell them whether their efforts are effective and provide the basis for adaptive management, a hallmark of the CALFED Program.

However, developing meaningful performance measures is a challenging undertaking. Simple metrics that capture program inputs, such as dollars encumbered, are relatively easy to collect, but do not describe program outcomes. Measures of program outcomes, which indicate progress towards meeting objectives are difficult to develop because the relationships between actions and objectives are complex; actions and progress are often diffuse and hard to quantify; and complete data often does not exist.

To help program elements overcome these obstacles, the CALFED Science Program has established a framework for performance measures. The framework acknowledges that performance measures linked to progress towards CALFED's resource management goals of ecosystem restoration, water supply reliability, water quality, and levee stability.

Work on performance measures in the CALFED Program began before the August 2000 Record of Decision. Most notably, the Ecosystem Restoration Program developed over 300 targets that are scientifically grounded and, from these, 119 milestones linked to regulatory assurances. The Ecosystem Program is also developing more complex performance measures based on rigorously established conceptual models.

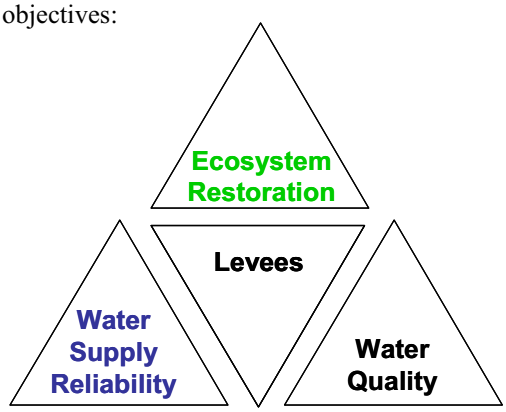
The other program elements have invested most of their performance measures efforts into reporting basic project information and analyzing readily available data on expected or observed project outcomes. Development of more complex system wide performance measures is expected to progress over the next year with help from the CALFED Independent Science Board and the soon to be convened Water Management Science Board.

Multiple Benefits

The CALFED Program is based on the premise that different kinds of problems in the Bay-Delta system are linked, and that long-lasting solutions must address multiple areas. The implementing agencies have worked hard to identify comprehensive solutions that address multiple problems. For example, ecosystem restoration projects often provide water quality or water supply benefits in addition to those for the environment. The total investment to date in the CALFED Program is nearly $2 billion. However, when these dollars are attributed to multiple objectives they contribute to an investment that is much higher. Nearly 80% of the investments made to date contribute to multiple program objectives.

Contributions toward Multiple Benefits

The work of the CALFED Program has been organized into the following 4 resource management objectives:



CALFED's four resource

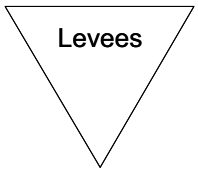
management objectives

Multiple Benefits in CALFED Projects – 2000 through 2004						
Program Element	Project Grouping	Amount* ($ million)	Additional Benefit			
			Levee	Supply	WQ	Eco
Conveyance	Barriers	$ 42.7		✓	✓	
	Flood/eco	3.2				✓
	South of Delta	18.1		✓	✓	
	Delta Conveyance	59.3		✓	✓	✓
Drinking Water Quality	Source	83.2			✓	✓
	Treatment	5.7			✓	
Ecosystem Restoration	Channel/Sediment/Floodplain	51.5				✓
	Ecosystem Water Quality	39.6			✓	✓
	Fish Screens and Passage	112.4		✓		✓
	Flows	18.1				✓
	Habitats	278.4		✓		✓
	Nonnative	5.2				✓
Envir. Water Acct.	Acquisitions	156.8		✓		✓
Levees	Special Projects	30.5	✓	✓	✓	✓
	Subventions	44.7	✓	✓	✓	✓
Storage	Groundwater	211.0		✓		
	Surface Water	70.2		✓	✓	✓
Water Transfers	Transfers	1.7		✓		
Water Use Efficiency	Ag	49.8		✓	✓	✓
	Recycling	542.1		✓		
	Urban	69.7		✓		
Watershed	Watershed	102.4		✓	✓	✓
	Grand Total	$ 1,996.3				

*These figures represent local, state, and federal encumbrance for CALFED projects and exclude costs for science, oversight, and coordination.

Although it is necessary to organize the activities of each program element within one of these objectives, it is more useful to organize program accomplishments around the overlap of these objectives, as follows:

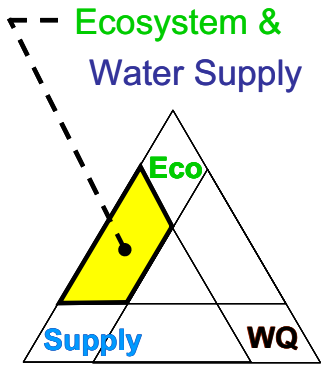
Overlapping objectives



Levee Stability. The Levee Program is not included in the figure above because, although the actions of the Levee Program contribute to ecosystem, water supply reliability and water quality objectives, those other program elements do not appreciably contribute to levee system integrity (although the ERP has made substantial investment in wildlife friendly levee protection).

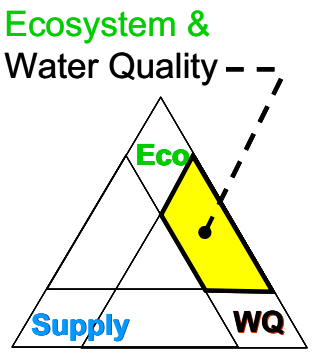
For example, actions of the Levee Subventions program are required by State statute to result in no net loss of habitat. As a result, these actions have ecosystem components. Similarly, levee maintenance and special projects reduce the risk of levee failure and flooding of Delta islands. The risks of water quality impairment and export cessation that would likely occur in the event of a levee break are also reduced.

Water Supply and Ecosystem. The following are examples of CALFED projects and programs that contribute to both water supply reliability and ecosystem restoration.



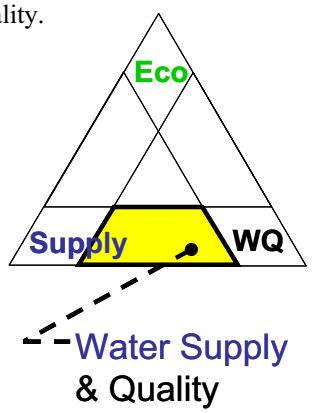
- ERP Habitat Projects: These projects have helped restore ecosystems by directly improving several types of habitats. By improving habitats, species have become healthier which reduce the chance of regulatory actions that could jeopardize water supplies.
- Environmental Water Account Acquisitions: Through more flexible operations, the EWA has protected at-risk species. By making water available to exporters, the EWA has improved water supply reliability.
- Fish Screens and Passage: Fish screens and the removal of fish barriers increase fish survival. This in turn reduces the chance of regulatory actions that could jeopardize water supplies.
- Conveyance Program Flood Mitigation and Ecosystem Management Projects: These flood control and mitigation projects protect both riparian ecosystems and surface water supply by maintaining consistent fresh water flows throughout the Delta.

Water Quality and Ecosystem. Following are examples of projects and programs that share water quality and ecosystem restoration objectives.



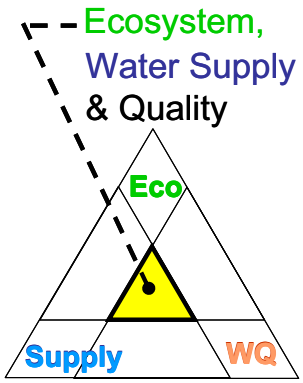
- Environmental Water Quality Projects: These projects aim to improve water and sediment quality within the Bay-Delta system. Although focused on chemical constituents that harm fish and wildlife, many of the non-point pollution control actions of these projects also reduce constituents that can degrade drinking water.
- Drinking Water Source Control: Although focused on improving drinking water supplies these projects will contribute to cleaner water for the ecosystem.

Water Supply and Quality Objectives. The following are examples of projects and programs that contribute to water supply reliability and improved water quality.



- Conveyance – Barriers: This category of projects includes both installation and removal of temporary barriers and design of permanent barriers. The barriers are an integral part of the South Delta Improvements package and will help make export pumping more reliable and improve export water quality.
- Conveyance-South of Delta: These projects include the Delta Mendota Canal/California Aqueduct Intertie, Rock Slough water quality improvements, and San Luis Reservoir Low Point improvements. Each of these projects has the ability to increase the available supply of water and/or improve water quality.

Ecosystem, Water Supply and Quality. The following are examples of projects and programs that support all three of the overlapping objectives:



- Conveyance - Through Delta: These projects attempt to optimize quantity and quality of Delta exports while supporting fisheries recovery.
- Storage-Surface – Each of the five surface storage projects under investigation, has the potential to provide released water for water users, in-stream flows, or water quality improvements.
- Watershed Management – This program element builds local capacity and supports projects that can improve water supply and quality and restore the ecosystem.
- Agricultural Water Use Efficiency – Has the potential of increasing in-stream flows, increasing the useable water supply, and improving water quality.

Progress of Program Elements

Each of the following sections in this document provides a summary of program element accomplishments, a set of sample performance measures for each program element as well as an indication of the work that is planned to further develop performance measures. The performance measures included in this document are provided as information, and represent a significant step forward in qualitative assessment of program performance. These performance measures are not meant to be definitive or final measures of program performance, much additional work is required before those conclusions can be reached. However, they do provide a glimpse of progress for each program element.